

Title (en)  
VISUAL POSITIONING SYSTEM

Title (de)  
VISUELLES POSITIONIERUNGSSYSTEM

Title (fr)  
SYSTÈME DE POSITIONNEMENT VISUEL

Publication  
**EP 2914927 A4 20160330 (EN)**

Application  
**EP 13851807 A 20131010**

Priority  
• US 201213666358 A 20121101  
• CA 2013050767 W 20131010

Abstract (en)  
[origin: US2014118536A1] A system determines an otherwise unknown position and orientation of a camera in a working environment, relative to an associated coordinate system, based on visually identifiable unique objects in images taken by the camera. The system utilizes a database that includes or may be updated to include position coordinates for unique objects of interest. The system identifies a plurality of objects within one or more images taken by the camera at a given location, and enters the database either to determine position coordinates for the respective identified objects or to add position coordinates to the data base for the respective identified objects, or both. The system may also update the database to include newly identified unique objects and objects that are altered between images, to determine position and orientation of the camera in a changing environment. Sensors may be included to add additional information relative to the position and orientation of the camera.

IPC 8 full level  
**G01B 11/14** (2006.01); **G01C 9/00** (2006.01); **G03B 17/00** (2006.01)

CPC (source: EP US)  
**G01C 21/20** (2013.01 - EP US); **H04N 1/32117** (2013.01 - EP US); **H04N 17/002** (2013.01 - EP US); **H04N 23/80** (2023.01 - EP US); **H04N 7/18** (2013.01 - EP US); **H04N 2201/3253** (2013.01 - EP US); **H04N 2201/3254** (2013.01 - EP US)

Citation (search report)  
• [XYI] US 2011064312 A1 20110317 - JANKY JAMES M [US], et al  
• [Y] EP 2321953 A1 20110518 - ECOLE POLYTECH [CH]  
• [Y] US 2002191862 A1 20021219 - NEUMANN ULRICH [US], et al  
• [Y] US 2010063664 A1 20100311 - ANDERSON NOEL WAYNE [US]  
• [Y] US 2012078510 A1 20120329 - MA YUNQIAN [US], et al  
• See references of WO 2014066996A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 2014118536 A1 20140501**; **US 9420275 B2 20160816**; CA 2878114 A1 20140508; CA 2878114 C 20180220; EP 2914927 A1 20150909; EP 2914927 A4 20160330; EP 2914927 B1 20200513; WO 2014066996 A1 20140508

DOCDB simple family (application)  
**US 201213666358 A 20121101**; CA 2013050767 W 20131010; CA 2878114 A 20131010; EP 13851807 A 20131010